

**MASSACHUSETTS DEPARTMENT OF  
TELECOMMUNICATIONS AND ENERGY**

**DOCKET DTE 03-60**

**TRIENNIAL REVIEW  
PROPOSED INITIAL DISCOVERY**

**BROADVIEW NETWORKS, INC.; BULLSEYE TELECOM, INC.; INFOHIGHWAY  
COMMUNICATIONS CORPORATION; MCGRAW COMMUNICATIONS, INC.;  
METTEL; AND TALK AMERICA INC.**

**MASS MARKET SWITCHING**

**DIRECTED TO VERIZON**

1. For the most recent quarter for which information is available, provide by applicable CLLI code the number of:
  - a. analog UNE loops provided to competitive carriers with unbundled local switching (*i.e.*, UNE-P lines);
  - b. analog UNE loops provided to competitive carriers without unbundled local switching; and
  - c. retail analog loops provided to end-user customers by Verizon.
2. For the most recent quarter for which information is available, provide for each CLLI code identified in question 1:
  - a. the type of switch;
  - b. the number of access lines equipped;
  - c. the number of access lines used;
  - d. the number of residential and business customers served by the switch;
  - e. the associated LATA number;
  - f. the MSA number (if applicable);
  - g. the V&H coordinates;
  - h. the latitude and longitude (L&L) coordinates; and

- i. the UNE loop rate zone (if applicable) (Source: added from #7)
3. Identify the number of central offices in Verizon in which more than one CLEC was collocated in the Commonwealth of Massachusetts:
  - a. As of December 31, 1996.
  - b. As of December 31, 2000.
  - c. As of March 31, 2003.
4. In the Commonwealth of Massachusetts, in Verizon's central offices that currently have one or more collocators, please the following information for each of those central offices:
  - a. Name and location of the central office;
  - b. The exchange served by the central office;
  - c. The number of collocations by collocation type;
  - c. The total amount of space currently being used by collocators; and
  - d. The total amount of space available for use by collocators (which does not include space reserved for your company or its affiliates);
  - e. names of carriers currently occupying collocation space;
  - f. the date the carriers took occupancy;
  - g. collocation space held by carriers who are currently in bankruptcy proceedings
  - h. collocation space occupied by CLECs no longer operating;
  - i. whether the CO is manned or unmanned.
  - j. The number of cross-connects in service to the wire center; and
  - k. The number of UNE loops provisioned to each collocating carrier in the past 3 months.
5. What is the maximum number of collocators at each central office of Verizon and each remote terminal of Verizon located within the Commonwealth of Massachusetts?
6. For the last quarter for which such information is available, provide by end-office (by applicable CLLI code):
  - a. the CLLI of the tandem switch on which the end-office homes;
  - b. the number of shared transport (*i.e.*, transport used in conjunction with unbundled local switching) minutes originating from the end-office; and

- c. the number of shared transport minutes terminating to the end-office.
- 7. For the same period as the information provided in the previous question, please provide:
  - a. Provide the number of loops, by calendar year and by central office (by applicable CLLI code), in Massachusetts that are served by:
    - i. IDLC arrangements;
    - ii. NGDLC arrangements;
    - iii. UDLC arrangements; and
    - iv. of the IDLC loops, please state how many loops are transferable to UDLC without additional construction.
  - b. Provide a forecast for the next five years, or the longest available forecast if a five-year forecast is not available, identifying the number of loops in Massachusetts that Verizon intends to serve via:
    - i. IDLC loop arrangements; and
    - ii. NGDLC loop arrangements.
- 8. Provide the number, for the most recent time period for which data is available, of UNE loops served by IDLC and NGDLC arrangements that have been provided to a CLEC:
  - a. with unbundled local switching; and
  - b. without unbundled local switching.
- 9. Please describe with specificity current and planned Verizon OSS capabilities to support automated processes for Pre-ordering, Ordering, Provisioning, Maintenance/Repair and Billing for voice-grade and xDSL-capable UNE loops on:
  - a. all-copper facilities;
  - b. hybrid fiber-copper facilities using IDLC; and
  - c. hybrid fiber-copper facilities using UDLC or NGDLC.

For each process described, please state whether the process provides flow through capability, if applicable, and if it the process provides flow through capability, please state the percentage of the service orders that flow through to completion.

10. Please state the applicable charges, if any, and the amount of time it takes to transfer a customer's IDLC loop to:
  - a. UDLC; and
  - b. spare copper.
11. Please state the maximum number of IDLC loops Verizon has cutover, by wire center, in a day.
12. Provide all documents that refer, relate to, or discuss the loop cutover through-put capability of the current Verizon network in Massachusetts and all documents that refer, relate to, analyze, or discuss how Verizon believes such capability may be increased.
13. Provide for calendar year 2002 Verizon's total revenue from the sale of unbundled local switching.
14. Provide for calendar year 2002 Verizon's total revenue from the sale of UNE shared transport.
15. Provide for the most recent calendar year for which such information is available, the total monthly recurring revenues received from collocation-based services (*i.e.*, space charges, power charges, cabling, terminations/cross-connects, etc.) in that calendar year and the number of collocation arrangements in-service at the end of that year.
16. For each quarter since 1999, provide the number of collocations by collocation type (*i.e.*, caged physical, cageless physical, virtual, other) for each wire center in Massachusetts and the number of cross-connects in service to such locations. For each collocation arrangement, provide:
  - a. the date when the CLEC took occupancy;
  - b. the number of UNE analog loops in service to the CLEC at that collocation in service; and
  - c. the number of UNE analog loops (2-wire terminations) available to the CLEC at that collocation.
17. Provide for calendar year 2002 separately for each type of collocation (*i.e.*, caged physical, cageless physical, virtual, other) the total square footage and number of collocations in Massachusetts and the total revenue collected for each type of collocation.
18. Provide for each calendar year from 1999 through 2002 separately for each type of collocation (*i.e.*, caged physical, cageless physical, virtual, other) the total square footage and number of collocations in Massachusetts and the total annual revenue collected for each type of collocation.

19. Describe all components of Verizon's own physical network that are utilized to connect a loop to a Verizon Class 5 or similar local switch that is located in the same central office as the end user being served.
20. Please provide the following information:
- a. the number of Manned COs in the state;
  - b. number of Unmanned COs in the state; and
  - c. number of Unmanned COs in which collocation arrangements are established.
21. What is the maximum number of collocators at a remote terminal?
22. For each month since 1999, please provide the number of and the total charges assessed for cutovers by wire center.
23. For question 22, please provide responses for the number CLEC-to-CLEC cutovers performed by Verizon.
24. Provide the average Verizon personnel time attributable to a single line cutover on an order.
25. Provide the average Verizon personnel time attributable to cutovers contained on multiple orders
26. Has Verizon ever communicated to any CLEC the total number of cutovers Verizon is capable of performing per central office per day? Or in any specific geographic area per day? If yes, provide the substance of those communications, including all documents relating to limitations on the number of hot cuts that can be performed. If there are differences in the maximum number of cutovers that can be performed in a central office or geographic area, please explain the reasons for the differences.
27. State the highest number of cutovers Verizon has ever performed in a single day in each central office.
28. Provide the number of cutovers performed for a particular CLEC (can identify as A, B, C, D), in the most recent 90-day period, by month, by central office.
29. Please state, for the most recent 30, 60 and 90-day periods for which data are available, the average number of lines Verizon processes on a single hot cut order. Please state the time period used to develop the averages provided and the number of observations used to develop the average

30. What limits, if any, are there on the number of UNE-P orders that can be completed in a single work day in Verizon central offices?
31. What limits, if any, are there on the number of PIC changes that can be completed in a single work day in Verizon central offices?
32. Please state the total number of PIC changes Verizon has performed in Massachusetts for each month from January 1999 to present.
33. During the past 5 years, has Verizon ever added processor capacity or peripheral equipment to one or more of its local switches due to:
- a. increased usage; and
  - b. exhaust of the number of end-user lines that could be connected to the switch.
34. If the answer to either part of the previous question above is yes, please identify:
- a. The nature of the upgrade performed.
  - b. Whether Verizon had other end-office switches within a 15-mile radius with capacity to handle additional lines.
  - c. If the answer to b. is yes, whether Verizon considered off-loading subscriber lines from the switch requiring the upgrade, and serving those lines from a different Verizon local switch. If Verizon did not consider doing so, why not?
  - d. If the answer to b. is no, whether Verizon considered off-loading subscriber lines from the switch requiring the upgrade, and serving those lines from a different carrier's switch (e.g. a potential wholesale provider of switching). If Verizon did not consider doing so, why not?
  - e. If, instead of going through an upgrade, Verizon did consider using a different Verizon switch or a different carrier's switch, produce all documents that refer, relate to, or discuss Verizon's consideration of off-loading such lines.
35. What engineering guidelines and/or standards does Verizon use to determine when, if ever, to serve customer lines from a switch other than the switch located at the customer's serving wire center?
- a. Under what conditions, if any, would Verizon consider serving lines from a switch other than the one located in the customer's serving wire center?
  - b. If so, please produce a copy of Verizon's switch engineering guidelines.

36. Please describe Verizon's Fill at Relief ("FAR") guidelines for switching. Please produce all documents describing Verizon's FAR guidelines.
37. Does Verizon currently provide any customers local exchange service, other than for foreign exchange service, from a switch located at a place other than the customer's serving wire center? If yes, identify:
- the wire centers and the number of affected lines at each of those wire centers;
  - the circumstances that caused Verizon to offer service in this manner; and
  - any additional charges imposed on the customer for this serving configuration.
38. Provide the purchase price for a fully loaded and installed Class 5 switch under any current Verizon master agreement with Nortel, Lucent, or Siemens. Please produce a copy of the current Master Agreement(s) and all amendments or addenda thereto between Verizon and its switch vendors.
39. Has Verizon deployed any soft switches to provide Class 5 circuit switching functionality in Massachusetts? If not, why not? If yes, describe the nature and extent of soft switch deployment by Verizon in Massachusetts.
40. Describe the software that is currently loaded in each of Verizon's Class 5 switches in Massachusetts by applicable CLI code.
41. Does Verizon have in place a single LSR process to migrate UNE loops from: Verizon to CLEC; CLEC to Verizon; and CLEC to CLEC for each of the following:
- voice service;
  - data service; and
  - voice and data service?
- If so, please state whether the process provides flow through capability, and provide: (a) the capacity of each process in terms of number of UNE loops per day that can be migrated; and (b) state the percentage of the service orders that flow through to completion.
42. Does Verizon have plans to increase its capacity to perform single LSR migrations? If so, please provide the planned capacity for each type of migration and service.
43. Are there any theoretical or practical limits to the number of migrations that could be performed in a given area in a specific time? If so, explain; if not, why not?
44. If a CLEC uses one wholesale provider for switching and another for the loop, or otherwise uses multiple vendors in its service arrangement, does that service arrangement place

any limitations, from the Verizon's perspective, on the CLEC's ability to use Verizon's pre-ordering and ordering processes?

45. What processes does Verizon have in place to handle orders that involve a CLEC using multiple vendors for its service arrangement, as described in the previous question? Please provide a copy of all documents describing Verizon processes identified.

46. Describe with specificity Verizon's plans to retire any copper loop plant in Massachusetts.

47. Please provide a copy of all documents describing Verizon's plans to retire copper loop plant in Massachusetts.

48. Please describe with specificity the process Verizon uses in retiring copper loop plant. Please specifically include in your answer the notice Verizon provides to CLECs who have customers that provide service using the plant and what options will be available to CLECs providing voice and/or DSL service to customers served by copper loop plant Verizon plans to retire.

49. Please provide the number of lines served by DLC for which alternative copper loop facilities are currently not available.

50. What percentage of Verizon's copper facilities in Massachusetts have been retired?

51. What rate does Verizon propose to charge other carriers for access to de-listed local switching functionality?

52. Provide all documents analyzing or describing any external "market" for leased local switching capacity that Verizon reviewed in evaluating its proposed pricing for de-listed local switching to serve voice grade loops. If no documents were reviewed, explain how Verizon established its prices for de-listed local switching.

53. Provide any and all market surveys conducted or other documents and information reviewed by Verizon that discuss or address:

- a. pricing strategies of competitors offering local switching;
- b. product descriptions of competitors' offerings of local switching for mass-market customers;
- c. demand elasticity for local switching;
- d. demand projections related to the market for local switching; and
- e. marketing strategies used by competitors offering local switching to serve mass-market customers.



54. Has Verizon ever considered leasing switching capacity from a third party to provide retail services:

- a. Within its certificated incumbent territory (*i.e.*, in-region)?
- b. Outside its certificated incumbent territory (*i.e.*, out-of-region)?
- c. If the answer to a. or b. is yes, provide all documents that refer, relate to, or discuss leasing third party switching capacity to provide retail services.

55. Refer to the 2002 *UNE Fact Report* sponsored by Verizon and filed at the Federal Communications Commission in its Triennial Review proceeding. For each of the pieces of equipment identified as “CLEC Circuit Switches Serving BOC Rate Centers” in Massachusetts, state:

- a. Whether the switch currently is operational (*i.e.*, providing any service).
- b. Whether the CLEC to whom the switch belongs currently offers local switching capacity for use with analog loops to other CLECs on a wholesale basis using the switch.
- c. The number of CLEC customers to whom the switch currently provides analog local switching capacity on a wholesale basis.
- d. Whether the CLEC to whom the switch belongs currently offers local switching capacity for use with DS-1 loops to other CLECs on a wholesale basis using the switch.
- e. The number of CLEC customers to whom the switch currently provides DS-1 local switching capacity on a wholesale basis.
- f. Whether any of the capacity of the switch is reserved for use by one or more Internet Service Providers.

56. Provide the current average per-minute revenue Verizon derives from the sale of retail interLATA long distance service.

57. Provide Verizon’s current average per-minute long distance network costs, net of access charges.

58. What processes does Verizon have in place to handle orders that involve a CLEC using multiple vendors for its service arrangement, as described in the previous question? Please provide a copy of all documents describing Verizon processes identified.

59. Describe with specificity Verizon's plans to retire any copper loop plant in Massachusetts.
60. Please identify any telecommunications carrier (including ILECs or CLECs) that Verizon has identified as being willing to provide, intending to provide, or currently making available wholesale unbundled local switching to CLECs within Massachusetts.
61. For any company identified in Request 60, please provide any documents, information, notes, work papers, or communications from the identified company in Verizon's possession or control relating to the identified company's ability, intent, desire, or willingness to provide or to make available wholesale unbundled local switching to CLECs within the Commonwealth of Massachusetts.
62. Has Verizon identified any vendors, other than any telecommunications carrier identified in Request 60, that are willing to offer switching capabilities to CLECs in the Commonwealth of Massachusetts. If the answer is "yes," please provide the name, address, and telephone number of each identified vendor.
63. If the answer to Request 60 is "yes," please provide all documents, correspondence, data, notes, or information from the identified vendor in Verizon's possession or control regarding the identified vendor's ability, intent, desire, or willingness to offer switching capability to CLECs in the Commonwealth of Massachusetts.
64. Identify by name all CLECs that are collocated with Verizon. For each CLEC, identify the physical location (*i.e.*, the specific central office) of each collocation.

#### **DIRECTED TO CLECS**

1. Does your company own or operate switches for the purpose of providing telecommunications services within the Commonwealth of Massachusetts?
2. If the answer to Request 1 is "yes," state whether your company is willing to and able to make available wholesale unbundled local switching to CLECs in Massachusetts?
3. If the answer to Request 2 is "yes," state whether your company is willing to and able to make a local loop to the end user available in conjunction with the wholesale unbundled local switching to CLECs. If the answer is "yes," please provide the terms, conditions, and rates under which your company will provide the loop in conjunction with the switching component.
4. If the answer to Request 2 is "yes," provide all terms, conditions, and rates under which your company is willing to and is able to make available wholesale unbundled local switching to CLECs within the Commonwealth of Massachusetts. If all or part of this information is not available, please provide a timeframe in which the information will be available.
5. If the answer to Request 2 is "yes," please provide the following information

regarding each switch that your company currently owns or operates and intends to use to make available wholesale unbundled local switching to CLECs within the Commonwealth of Massachusetts:

- a. the make, model, age, and current software upgrades of each switch;
- b. the geographic location of each switch;
- c. the footprint or geographic area served by each switch, including a list of each exchange served by each switch;
- d. the features and functions (including software upgrades) available in each switch;
- e. for each switch identified, please provide the capacity of each switch, including:
  - i. percentage of switch capacity in use;
  - ii. percentage of switch capacity reserved for your company's own use and future use; and
  - iii. percentage of current and future capacity of each switch that will be made available for CLEC use.
- f. for each switch identified, please state in detail:
  - i. the anticipated service life of each identified switch;
  - ii. whether your company intends to utilize the identified switch for the full anticipated service life;
  - iii. the existing plans and protocols for ordering and implementing software upgrades; and
  - iv. your company's business plans and procedures for development and use of new switch types and technologies.

6. If the answer to Request 2 is "yes", please provide the operational support system interface capabilities, including version number and a copy of the methods and procedures, that your company uses or will use when offering unbundled local switch capability to CLECs in the Commonwealth of Massachusetts.

7. If the answer to Request 2 is "yes", please provide the following information with respect to your company's ability to offer and to provide transport:

- a. does your company intend to offer or to make available transport as a stand-alone service to CLECs within the Commonwealth of Massachusetts;

- b. does your company intend to offer or to make available transport in conjunction with provision of unbundled local switching capacity to CLEC;
- c. provide the total available capacity of your company's network to provide transport;
- d. provide all terms, conditions and rates in which your company is willing to provide transport as a stand-alone or in conjunction with provision of unbundled local switching capacity to CLECs in Massachusetts (if this information is not available, please provide a timeframe by which it will be made available); and
- e. state whether your company's network facilities has the capability to provide redundancy for transport, and whether such redundancy, to the extent that it exists, will be provided in conjunction with your company's provision of transport.

#### **DIRECTED TO EQUIPMENT MANUFACTURERS**

1. Provide a list of all circuit switches installed for non-Verizon entities in Massachusetts since 1996.
2. For each switch listed in 1. above, did [Lucent/Nortel/Siemens] provide or arrange for financing of the switch? If yes, please provide:
  - a. the amount of such financing;
  - b. whether the switch is being leased by the CLEC from a financial services company (such as GE Capital);
  - c. the status of payment for such switch (*i.e.*, is the CLEC current on its payments); or
  - d. whether Lucent/Nortel/Siemens has written off the value of the switch.
3. For each switch listed in 1. above, has the CLEC entity that originally had the switch installed:
  - a. filed for protection from creditors under Chapter 11 of the U.S. Bankruptcy Code since the switch was installed; or
  - b. filed for liquidation under Chapter 7 of the U.S. Bankruptcy Code since the switch was installed?